

## Ashland Lake

Ozark Border Region

Ashland Lake is located in the 2,300-acre Baskett Wildlife Research Area, east of Ashland. It is approximately 12 acres in size and is owned by the University of Missouri. The lake's fishery is managed by the Missouri Department of Conservation and public fishing is allowed.

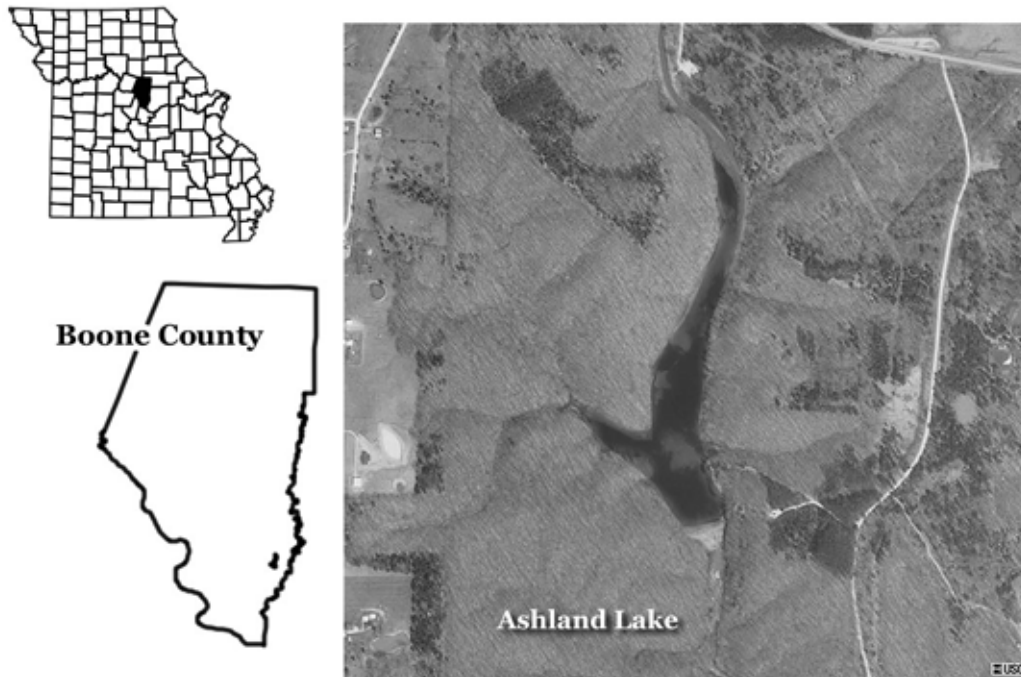


Figure 10. Location of Ashland Lake.

### 2003 Results

Figure 11 shows how the parameters nitrogen, phosphorus, algal chlorophyll, inorganic suspended solids and Secchi transparency varied in Ashland Lake during 2003. The descriptive statistics appear in Table 4. A brief description of the results:

- Four Samples were collected between April 14 and September 17
- Ashland Lake was hypereutrophic in 2003, based on concentrations of nitrogen, phosphorus and chlorophyll
- The chlorophyll geometric mean for 2003 is more than twice that of 2002
- Phosphorus geometric mean is only about 25% higher than last year
- ISS geometric mean is double that of last year
- TN and Secchi geometric means were comparable to last year
- No within season trends are apparent

Table 4. Descriptive statistics for Ashland Lake – 2003.

	<b>Secchi (inches)</b>	<b>TP (<math>\mu\text{g/L}</math>)</b>	<b>TN (<math>\mu\text{g/L}</math>)</b>	<b>CHL (<math>\mu\text{g/L}</math>)</b>	<b>ISS (<math>\text{mg/L}</math>)</b>
# of Samples	5	4	4	4	3
Median	19	167	1430	58.2	9.6
Minimum	12	94	1030	16.3	2.9
Maximum	35	214	3830	122.0	10.8
Geometric Mean	19	152	1673	50.4	6.7

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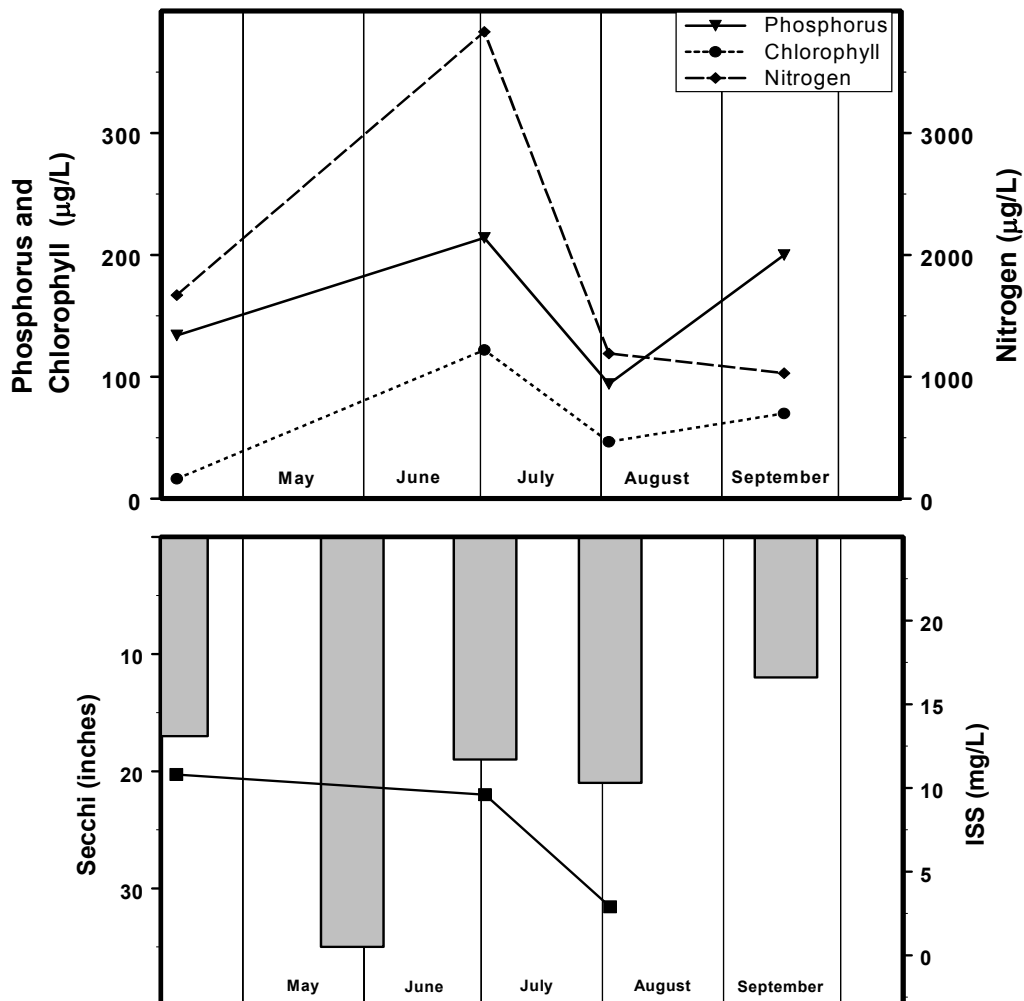


Figure 11. Seasonal fluctuations of parameters for Ashland Lake – 2003. Bars represent Secchi, line represents ISS.